

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

26 FEDERAL PLAZA

NEW YORK, NEW YORK 10278

AUG 4 1989

To All Interested Parties:

I am writing to you regarding the U.S. Environmental Protection Agency's (EPA's) review of the special ocean dumping permit applications submitted by the following New Jersey and New York sewage sludge generators:

Bergen County Utilities Authority,
Joint Meeting of Essex and Union Counties,
Linden Roselle Sewerage Authority,
Middlesex County Utilities Authority,
Nassau County Department of Public Works,
New York City Department of Environmental Protection,
Passaic Valley Sewerage Commissioners,
Rahway Valley Sewerage Authority, and
Westchester County Department of Environmental Facilities.

On June 16, 1989, I, as the Presiding Officer of the Public Hearing Sessions (held April 24-28, 1989) made my recommendation to the Acting Regional Administrator concerning the issuance of the final permits. On August 4, 1989, the Acting Regional Administrator made a determination to issue the nine ocean dumping permits as indicated by the enclosed concurrence. This letter serves to notify you that these permits will become effective on August 14, 1989 unless a request for an adjudicatory hearing is filed in accordance with 40 CFR 222.10(a) with Acting Regional Administrator William J. Muszynski, to the attention of the Office of Regional Counsel, at this office by August 14, 1989. A generic permit covering all nine generators is enclosed for ease of your review and mailing; copies of the individual permits may be obtained from this office.

As required by the Ocean Dumping Ban Act of 1988, the consent decrees and enforcement agreements (Agreements) with all of the sludge generators have been signed as proposed and are being lodged with the Court. These Agreements contain the schedules for the sludge generators to implement their interim ocean dumping phase-out plans and long-term land-based sludge management alternatives. The public comment period on these Agreements was announced in the Federal Register in stages starting on June 20, 1989 and closing with the last stage on July 26, 1989. All of the comments were thoroughly reviewed; no issues were raised which required renegotiation of any of the Agreements. A responsiveness summary is being completed for distribution to all interested parties within a few weeks. Copies of the signed Agreements may also be obtained from this office.

WE THE AVERCHMENTAL PROTECTION AGENCY

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If there are any questions concerning this matter, please contact Mr. Bruce Kiselica of my staff at (212) 264-5692.

Thank you for your continued support in our efforts toward protecting public health and the marine environment.

Sincerely yours,

Richard L. Caspe, P.E.

Director

Water Management Division

Enclosures

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## MARINE PROTECTION, RESEARCH, & SANCTUARIES ACT OCEAN DUMPING PERMIT

| PERMIT NO. AND TYPE: | II-NY or NJ-XXX SPECIAL | - |
|----------------------|-------------------------|---|
| EFFECTIVE DATE:      | AUGUST 14, 1989         |   |
| EXPIRATION DATE:     | MARCH 17, 1991          |   |

PERMITTEES:

Passaic Valley Sewerage Commissioners Middlesex County Utilities Authority Bergen County Utilities Authority

Joint Meeting of Essex and Union Counties

Rahway Valley Sewerage Authority Linden-Roselle Sewerage Authority

New York City Department of Environmental Protection

Nassau County Department of Public Works

Westchester County Department of Environmental

Facilities

WASTE GENERATOR(S): All of the Above

WASTE GENERATED AT: All of the Above

PORT OF DEPARTURE: Port of New York and New Jersey

WASTE TRANSPORTERS: 106 Mile Transport Associates

National Seatrade, Inc.

New York City Department of Environmental

Protection

TOWING CONVEYOR(S): Weeks Stevedoring Co., Inc.

General Marine Transport Corp.

Moran Towing Transportation Co., Inc. Turecamo Coastal and Harbor Towing Corp.

Eckloff Marine Corp.

Reinauar Transportation Co.

Bouchard Transportation Co., Inc.

or any other transporter or towing conveyor contracted by the permittee and authorized by the EPA to perform such services.

This permit authorizes the transportation and dumping into ocean waters of certain materials pursuant to the Marine Protection, Research, and Sanctuaries Act of 1972, as amended 33 U.S.C. 1401-1444, (hereinafter referred to as "the Act"), regulations promulgated thereunder, and the terms and conditions set forth below.

#### Conditions:

- 1. All transportation and dumping authorized herein shall at all times be undertaken in a manner consistent with the terms and conditions of this permit. The Permittee(s) named above shall hereafter be referred to as the permittee(s). The permittee, waste transporter, and towing conveyor designated above shall be liable for compliance with such terms and conditions. The liability of each is set forth in Condition No. 33. Compliance by any permittee, waste transporter, or towing conveyor with one or more but less than all of the conditions with which the permittee, waste transporter, or towing conveyor must comply shall not constitute a ground or grounds of defense in any proceeding against that permittee, waste transporter, or towing conveyor for violation of the provisions of this permit.
- 2. Any person who violates any provision of the Act, the Regulations issued thereunder, or any term or condition of this permit shall be liable for a civil penalty of not more than \$50,000 per day for each violation. Additionally, any knowing violation of the Act, Regulations or permit may result in a criminal action being brought with penalties of not more than \$50,000 or one year in prison, or both.
- 3. a. Transportation to and dumping of waste, or any residue of said waste that remains in the vessel after the dumping procedures described in Condition No. 24, at any location other than that authorized by this permit shall constitute a violation of the Act and the terms and conditions of this permit.
- b. Transportation and dumping of any material or constituent not identified in this permit, or in excess of that identified in this permit, or in excess of the criteria identified in the Regulations, unless specifically authorized by a written modification hereto, shall constitute a violation of the Act and the terms and conditions of this permit.
- 4. Nothing contained herein shall be deemed to authorize, in any way, the transportation from the United States for the purpose of dumping into ocean waters, the territorial seas, or into the contiguous zone, of the following prohibited material:
  - a. High-level radioactive wastes.
  - b. Materials, in whatever form, produced for radiological, chemical, or biological warfare.
  - c. Persistent inert synthetic, or natural materials which may float or remain in suspension in the ocean.

- d. Digester cleanout defined as any material that is removed from a sludge digester through the cleaning of said digester.
  - e. Storage tank cleanout defined as any material that is removed from a storage tank through the cleaning of said storage tank.
  - f. Medical wastes as defined in Section 3 (k) of the Act.
- 5. Any person who dumps medical wastes shall be liable for a civil penalty of not more than \$125,000 per day for each violation. Additionally, anyone who knowingly dumps medical wastes may be subject to criminal action being brought with penalties of not more than \$250,000 or not more than 5 years in prison, or both, in accordance with Section 105 of the Act.
- 6. After notice and opportunity for a hearing, this permit may be modified or revoked, in whole or in part, during its term for cause including, but not limited to, the following:
  - a. Violation of any term or condition of the permit.
    - b. Misrepresentation, inaccuracy, or failure by the permittee or waste transporter to disclose all relevant facts in the permit application.
  - c. A change in any condition or material fact upon which this permit is based that requires either a temporary or permanent addition to, reduction, or elimination of the authorized transportation or dumping including, but not limited to, changes in conditions at the designated dump site and newly discovered scientific data relative to the issuing of this permit.
  - d. Failure to keep records, engage in monitoring and reporting activities, or notify appropriate officials in a timely manner of the transportation and dumping activities as specified in any condition of this permit.
- 7. This permit shall be subject to suspension by the EPA Regional Administrator or his delegate if he determines that the authorized dumping has resulted, or is resulting, in imminent or substantial harm to human health or welfare or the marine environment.

- 8. The performance of any transportation or dumping authorized by this permit, by any person, firm, or corporation other than the named permittee shall not relieve the permittee from full responsibility for compliance herewith, nor shall the existence of any contractual or other agreement with such person, firm, or corporation operate to relieve either party from responsibility for compliance with this permit or the Act or both.
- 9. The authority conferred by this permit may, at the discretion of the EPA Regional Administrator or his delegate, be transferred to a waste transporter, or towing conveyor other than those named herein, provided that a request for such a transfer be made, in writing, by the permittee at least thirty (30) days prior to the requested transfer date.
- 10. If material which is regulated by this permit is discharged due to an accident or an emergency to safeguard life at sea, in locations or in a manner not in accordance with the terms or conditions of this permit, the permittee shall make a full written report within ten (10) days to the Regional Administrator detailing the conditions of this accident or emergency and the actions taken. The owner or operator of the vessel shall notify EPA and the Coast Guard of the incident by radio, telephone, or telegraph immediately but not later than one (1) hour after occurrence of said incident.

Within sixty (60) days of issuance of this permit, the permittee shall submit to EPA for approval a catastrophic spill contingency plan detailing steps to be taken for the prevention of and mitigation of environmental impacts from a catastrophic spill.

- 11. Unless otherwise provided for herein, all terms used in this permit shall have the meanings assigned to them by the Act or the Regulations issued thereunder.
- 12. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of rights, nor any infringement of federal, state, or local laws or regulations, nor does it obviate the necessity of obtaining State or local assent required by applicable law for the activity authorized.
- 13. This permit does not authorize or approve the construction of any onshore physical structures or facilities or the undertaking of any work in any navigable water.
- 14. Each waste transporter and towing conveyor shall at all times maintain in good working order and operate as efficiently and as safely as possible, all facilities, including vessels, used by the waste transporter or towing conveyor in achieving

compliance with the terms and conditions of this permit. All vessels used in achieving such compliance shall be certified as meeting U.S. Coast Guard standards for seaworthiness and safety.

- 15. This permit, or a true copy thereof, shall be placed in a conspicuous place in each scow, boat, barge, towed vessel, self-propelled vessel or tugboat that will be used to transport, dump, or transfer the waste described in this permit.
- 16. Every scow, boat, barge, towed vessel, self-propelled vessel or tugboat, engaged in the transportation of wastes described in this permit shall have its name and number painted in letters and numbers at least fourteen (14) inches high on both sides of the scow, boat, barge, towed vessel, self-propelled vessel or tugboat. The name and number shall be distinctly legible at all times, and no scow, boat, barge, towed vessel, self-propelled vessel or tugboat not so marked shall be used to transport, dump, or transfer such material.
- 17. The permittee, waste transporter(s), and towing conveyor(s) shall allow the EPA Regional Administrator, the Commander of the U.S. Coast Guard Third District, appropriate State representatives and/or their authorized representatives including authorized contractors, the following:
  - a. To enter into, upon, or through the permittee's or waste transporter's premises, vessels, or other premises or vessels under the control of the permittee or waste transporter where, or in which, a source of material to be dumped is located or in which any records required to be kept under the terms and conditions of this permit or the Act. The vessels include any towed vessel, tugboat, barge, scow, boat, or self-propelled vessel.
  - b. To have access to and copy any records required to be kept under the terms and conditions of this permit or the Act.
  - c. To inspect any monitoring equipment or monitoring method required in this permit.
  - d. To sample or require that a sample be drawn of any of the materials discharged or to be discharged.
  - e. To inspect any dumping and navigation equipment installed on board any towing vessel, tugboat, barge, or self-propelled vessel utilized in ocean dumping activities authorized under this permit.

18. a. As part of the Ocean Dumping Surveillance System (ODSS) the waste transporter shall allow the Coast Guard to install on each towed vessel or self-propelled vessel departing port for ocean dumping activities under this permit, a remote unit (black box), hull transducers, hull inserts, antennas and all necessary cable and connections and any other equipment or devices used to facilitate the operation of the ODSS. The waste transporter(s) is required to coordinate installation of the ODSS with the Coast Guard and is responsible for arranging dry docking of the vessels.

The waste transporter(s) is also responsible for:

- supplying and mounting the brackets for the cables and antennas.
- making all necessary waterproof bulkhead holes for cables.
- iii. mounting the hull inserts in the hull into which the hull transducers are installed.
- iv. routing the cable from the transducers and antenna to the remote unit.
- v. providing an AC power source (Circuit Panel) to the remote unit.
- b. The ODSS shall be installed and tested no later than 30 days before any dumping may occur. The permittee shall not use nor the waste transporter allow a towed vessel or self-propelled vessel to depart on a dumping mission without such equipment installed and tested unless a written authorization from the Regional Administrator or his delegate is first obtained.
- c. The waste transporter shall maintain continuous AC electrical power to the remote units and dump sensors at all times, whether at sea or in port.
- d. The waste transporter and towing conveyor shall not alter or remove the remote unit, hull transducers, connections, antennas or any other part of the ODSS, nor shall the waste transporter or towing conveyor in anyway interfere with the operation of said system.
- 19. <u>Description of Waste</u> During the term of this permit, the type and quantity of waste permitted for transportation for the purpose of ocean dumping shall be in accordance with the following:

Type of Waste - Digested or otherwise stabilized municipal sewage sludge.

| Permittee   | Dry Tons Annually of<br>Waste | Wet Tons Annually of<br>Waste |
|-------------|-------------------------------|-------------------------------|
| NYC         | 120,888                       | 4,558,694                     |
| PVSC        | 96,016                        | 1,400,000                     |
| MCUA        | 40,741                        | 1,001,001                     |
| Nassau      | 22,995                        | 919,800                       |
| BCUA        | 14,180                        | 430,000                       |
| Joint Mtg.  | 13,293                        | 400,400                       |
| Westchester | 12,841                        | 513,640                       |
| RVSA        | 5,701                         | 169,169                       |
| LRSA .      | 2,502                         | 100,100                       |

No amount of waste in excess of either the wet tonnage or dry tonnage shown above shall be ocean dumped, except an additional allowance in the quantities of wastes will be made for the growth within the existing MCUA service area including additional flow directly attributable to the tie-in to the MCUA facility by the following municipalities: Sayreville, Old Bridge, Perth Amboy, South Amboy, Woodbridge and Carteret, upon demonstration to EPA's satisfaction that such additional allowance is needed.

In the event of unavoidable breakdown of Passaic Valley Sewerage Commissioners sludge stabilization process (Zimpro), unstabilized sewage sludge may be disposed under the terms and conditions of this permit. PVSC shall utilize all necessary preventive maintenance procedures to ensure that its sludge stabilization process attains maximum utilization and shall submit to EPA monthly status reports (within 15 calendar days of the end of each month) on the operation of said process.

20. <u>Disposal Site</u> - Transportation for the purpose of ocean dumping shall terminate at, and waste disposal shall be confined to, the Deepwater Municipal Sludge Dump Site (DMSDS). The area of the DMSDS is described below and on each navigational overlay.

<u>Latitude</u>: 38° 40'00"N to 39° 00'00" N

Longitude: 72° 00'00"W to 72° 05'00" W

21. <u>Authorized Transport</u> - The waste transporter shall use only the following towed vessel(s)/self-propelled vessel(s) for dumping of wastes authorized under this permit unless additional vessel(s) are authorized by EPA in writing after receipt of a written request by the waste transporter.

| 106-Mile Transport   | New York City DEP  | National Seatrade               |
|--|--|---------------------------------|
| Weeks 701 * Weeks 702 * Eileen * Kimberly Ann * Lisa * Maria * Morris J. Berman Leo Frank * Princess B | Lemon Creek * Spring Creek * Udalls Cove * Tibbets Brook * | Sea Trader I * OBI IV Sotoco II |

- \* These vessels can discharge at the interim discharge rates listed in Table 2, based upon the location and number of discharge ports, wake characterization, and dispersion characteristics.
- The master of the ocean dumping vessel (ie., tugboat or self-propelled vessel) shall submit an Ocean Dumping Notification Form (ODNF) which shall contain a navigational overlay of the dumping vessel's trackline during the dumping operation and all other information required on the ODNF (see Attachment No. 1). The navigational overlay shall clearly show the times and positions of the vessel at critical points (i.e., entry and exit from the dump site; beginning and end of dump, and points every two (2) hours along the discharge path). The overlay shall be signed and dated by the vessel master. The master of the vessel shall also be required to certify whether or not discharge requirements found in Condition No. 24 were met. The original ODNF along with the original Manifest form (s) (see Condition No. 27 b.) shall be forwarded within 72 hours after completion of the voyage to the EPA. Copies of the ODNF shall also be sent to the Coast Guard, waste transporter, and the permittee(s) whose waste was dumped, at the same time that the original is forwarded to the EPA.
- 23. The waste transporter shall install and utilize during the course of each nighttime dumping operation a spotlight, which shall be of sufficient intensity to illuminate the discharge immediately astern of the dumping vessel. The spotlight shall be sufficiently elevated so as to give ample coverage to the wake of the vessel, while at the same time maintaining the direction of the light beam vertically into the water column. The spotlight shall be fixed firmly into position and shall be installed on the vessel so as not to interfere with or to be confused with any other required navigational lights.
- 24. <u>Discharge Rates</u> Discharge rates for the sewage sludge are based on the dilution required to meet the limiting permissible concentration (LPC) at the 4 hour initial mixing period. The required dilution is based on the LC50 of the most sensitive marine species tested and an application factor of 0.01. Dilutions that will occur are proportional to vessel speed. The nomographs shown in Figures 1 and 2 will be used to determine the discharge rate of the sewage sludge.

Required dilutions and discharge rates for each permittee using the DMSDS are initially established as listed in Tables 1 and 2 and dependent upon vessel.

TO 10 Kn TABLE 1. MUNICIPAL SEWAGE SLUDGE DISCHARGE RATES FOR VESSELS AT SPEEDS OF 3

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| Authority | Required<br>Dilution | 3kn   | 4kn   | 5kn   | 6kn    | 7kn    | 8kn    | 9kn    | 10kn   |
|-----------|----------------------|-------|-------|-------|--------|--------|--------|--------|--------|
| PVSC      | 58,800               | 210   | 280   | 350   | 420    | 490    | 560    | 630    | 700    |
| MCUA      | 4,740                | 4,359 | 5,812 | 7265  | 8.719  | 10.171 | 11 624 | 13 078 | 14 530 |
| BCUA      | 6,450                | 2,684 | 3,579 | 4.473 | 5.368  | 6.263  | 7 157  | 8 052  | 00000  |
| LRSA      | 166,700              | 73    | 97    | 122   | 145    | 170    | 195    | 20,002 | 0,041  |
| RVSA      | 11,360               | 1,276 | 1.701 | 2.127 | 2.552  | 2 977  | 3 403  | 3 830  | 44.0   |
| JMEUC     | 5,950                | 3,024 | 4.032 | 5040  | 20019  | 7 056  | 60416  | 07070  | 4,633  |
| NYCDEP    | 6.290                | 2,784 | 3 713 | 019   | 0,040  | 960'   | 0,004  | •      | 10,080 |
| NCDE      | 070 01               | 10/10 | 21116 | 01011 | 906 16 | 0,490  | 1,424  |        | 9,280  |
| NCDEW     | 10,8/0               | 1,34/ | 1,796 | 2,245 | 2,694  | 3,143  | 3,592  | 4,041  | 4,490  |
| WCDEF.    | 10,990               | 1,329 | 1,772 | 2,215 | 2,658  | 3,101  | 3,544  | 3,987  | 4,430  |

TO 10 km ന 2. INTERIM MUNICIPAL SEWAGE SLUDGE DISCHARGE RATES FOR VESSELS AT SPEEEDS OF TABLE

| Authority | Required<br>Dilution | 3kn   | 4kn    | 5kn    | 6kn    | 7kn    | 8kn      | 9kn     | 10kn   |
|-----------|----------------------|-------|--------|--------|--------|--------|----------|---------|--------|
| PVSC      | 58,800               | 420   | 560    | 700    | 840    | 980    | 1,120    | 1 260   | 1 400  |
| MCUA      | 4,740                | 8,718 | 11.624 | 14.530 | 15,500 | 15,500 | 15,500   | 18,200  | 15,400 |
| BCUA      | 6,450                | 5,368 | 7,157  | 8,947  | 10 736 | 12,556 |          | 15,000  | 15,500 |
| LRSA      | 166,700              | 146   | 195    | 670    | 200    | 26,32  | CTC / #T | 006,61  | 006,61 |
| DITCA     | 036 11               | 4     |        | 7 6    | 767    | 7 % C  | 289      | 438     | 487    |
| ACVA      | 11,360               | 766'7 | 3,402  | 4,253  | 5,104  | 5,955  | 6,805    | 7,656   | 8.507  |
| JMEUC     | 5,950                | 6,048 | 8,064  | 10,080 | 12.096 | 14,112 |          | 15,500  | 15 500 |
| NYCDEP    | 6.290                | 5.568 | 7 424  | 086 6  | 11 136 | 227/27 | 2000     | 000,000 | 15,500 |
| NCDDW     | 10 870               | 100   | ***    |        | 11/130 | 766'77 | 14,848   | 15,500  | 15,500 |
| HODEN     | 10,010               | 7,034 | 3,592  | 4,490  | 5,388  | 6,286  | 7,184    | 8,082   | 8,980  |
| WCDEF.    | 10,990               | 2,658 | 3,544  | 4,430  | 5,316  | 6,202  | 7,088    | 7,974   | 8,860  |

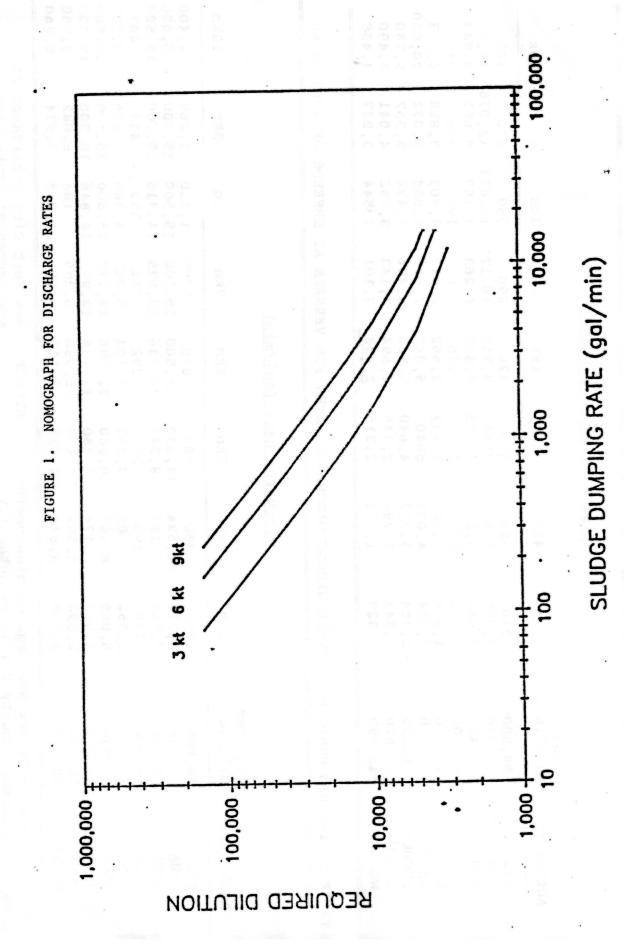
| NYCDEP                                  |  | NCDPW                               |                                     |
|---|--|-------------------------------------|-------------------------------------|
| = Passaic Valley Sewerage Commissioners | = Middlesex County Utilities Authority | = Bergen County Utilities Authority | = Linden-Roselle Sewerage Authority |
| PVSC                                    | MCUA                                   | BCUA                                | LRSA                                |

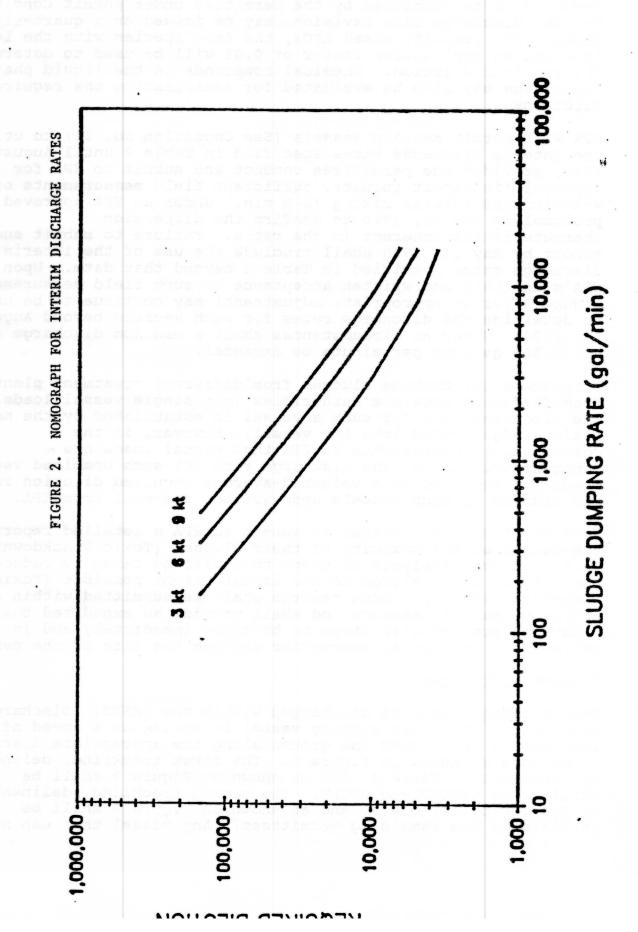
= Rahway Valley Sewerage Authority

JMEUC RVSA

Environmental Facilities

Westchester County Department of department of Protection Nassau County Public Works Environmental H 11 ICDPW WCDEF = Joint Meeting of Essex and Union Counties





Based upon EPA's evaluation of the sludge characterization data required to be submitted by the permittee under permit Condition No. 25, discharge rate revisions may be issued on a quarterly basis. For toxicity based LPCs, the test species with the lowest LC50 and an application factor of 0.01 will be used to determine the required dilution. Chemical compounds in the liquid phase of the sludge may also be evaluated for establishing the required dilutions.

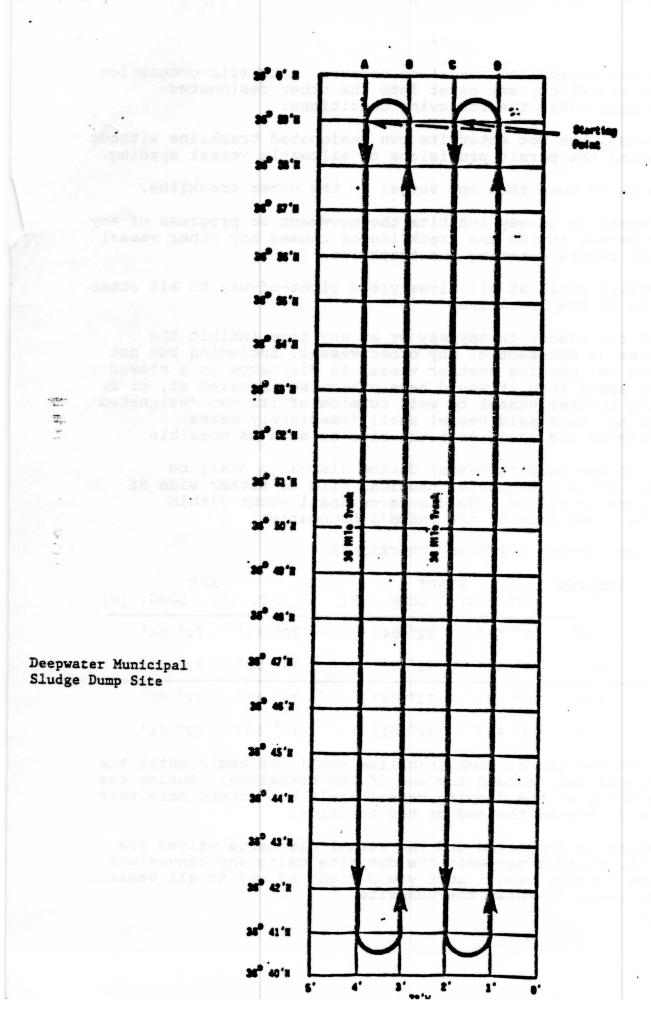
EPA will permit certain vessels (See Condition No. 21) to utilize the interim discharge rates specified in Table 2 until August 14, 1990, provided the permittees conduct and submit to EPA for approval (in report format), sufficient field measurements of the wake-induced initial mixing (0-5 min.) under an EPA approved protocol by May 14, 1990 to confirm the dispersion characteristics inherent in the rates. Failure to submit such a report by May 14, 1990 shall preclude the use of the interim discharge rates specified in Table 2 beyond that date. Upon EPA's analysis and written acceptance of such field measurements, Figure 2 (or an appropriate adjustment) may continue to be used to determine the discharge rates for such vessels beyond August 14, 1990. Under no circumstances shall a maximum discharge rate of 15,500 gallons per minute be exceeded.

Permittees may combine sludges from different treatment plants or from different sewerage authorities into single vessel loads. The discharge rate for such a vessel is established by the most toxic sludge loaded into the vessel. However, if the permittee(s) demonstrates to EPA that vessel loads are homogeneously mixed, the discharge rate for such combined vessel loads may be based on a weighted-average required dilution for the sludges in such vessels upon written approval from EPA.

PVSC and LRSA are required to submit to EPA a detailed report of the causes of the toxicity of their sludges (Toxic Trackdown) as well as a full analysis of steps that will be taken to reduce the toxicity of their sludge to the lowest extent possible (Toxicity Reduction Program). Such reports shall be submitted within six months of permit issuance and shall provide an expedited toxicity reduction program with steps to be taken immediately and in three-month increments thereafter through the life of the permit.

#### Dumping Procedures

Sewage sludge shall be discharged within the DMSDS. Discharge shall occur while the dumping vessel is moving at a speed of not less than 3 knots over the ground along the appropriate discharge tracklines as shown in Figure 3. The first trackline, delineated by lanes A-B in Table 3, and as shown on Figure 3 shall be utilized by NYCDEP and NCDPW. The second trackline, delineated by lanes C-D in Table 3, and as shown on Figure 3 shall be utilized by the remaining permittees. Any vessel that can not



enter its own designated trackline because of traffic congestion within its trackline, may enter into the other designated trackline <u>only</u> under the following conditions:

- 1. The vessel can not enter its own designated trackline without violating the permit provisions on allowable vessel spacing.
- 2. There is no more than one vessel in the other trackline.
- 3. The vessel in no way inhibits the movement or progress of any other vessel inside the trackline or causes any other vessel to wait before entering the trackline.
- 4. The vessel shall at all times yield right-of-way to all other vessels in the trackline.
- 5. Should the vessel in any way or at any time inhibit the progress or movement of any other vessel, including but not limited to; causing another vessel to discharge at a slower vessel speed than it would have otherwise traveled at, or by causing another vessel to wait outside of its own designated trackline, then said vessel shall immediately cease discharging and shall exit the site as soon as possible.

The track of the dumping vessel during discharge shall be limited to within one-quarter nautical mile of either side of the discharge trackline. No discharge shall occur within one-half nautical mile of the DMSDS's boundaries.

TABLE 3. DESIGNATED DISCHARGE TRACKLINES

|       | HEADING | SI       | TART      | E        | ND        |
|-------|---------|----------|-----------|----------|-----------|
| LANE  | T       | LAT. (N) | LONG. (W) | LAT. (N) | LONG. (W) |
| A     | 180°    | 38° 59'  | 72° 04'   | 38° 41'  | 72° 04'   |
| В     | 000°    | 38° 41'  | 72° 03'   | 38° 58'  | 72° 03'   |
| <br>С | . 180°  | 38° 58'  | 72° 02'   | 38° 41'  | 72° 02'   |
| D     | 000°    | 38° 41'  | 72° 01'   | 38° 59'  | 72° 01'   |

The turns at the end of each trackline shall not begin until the dumping vessel has reached the end of the trackline. During the turn, the track of the dumping vessel shall not extend more than one-half mile beyond the end of the trackline.

After dumping is completed and the vessel discharge valves are secured, the vessels may exit the dumpsite using any convenient route. The exiting vessel must yield right of way to all vessels dumping or about to enter the dumpsite.

Vessels which are discharging <u>must maintain</u> a minimum 2 hour separation between them. They may not follow any discharge trackline any sooner than 2 hours after the trackline was made.

#### Allowable Discharge Rates during High Energy Conditions

Permittees will be allowed to discharge at five times their normal rates while sustained wind conditions within the designated site are at or above "Beaufort Force 5", as listed in Appendix No. 7, provided that in no case shall discharge rates exceed 15,500 gallons per minute.

In order to utilize this provision the towing vessel or self propelled vessel shall have installed and maintain appropriate wind speed instrumentation. A description of such instrumentation shall be submitted by the permittee to EPA within 30 days of permit issuance.

EPA will permit all vessels to utilize the allowable discharge rates during high energy conditions until August 14, 1990 provided the permittees conduct and submit to EPA for approval (in report format), sufficient field measurments of dispersion at "Beaufort Force 5" wind conditions under an EPA approved protocol by May 14, 1990 to confirm such increased dispersion. Failure to submit such a report by May 14, 1990 shall preclude the use of the above-mentioned five-fold increase in discharge rates beyond that date. Upon EPA's analysis and written acceptance of such field measurements, the five-fold increase (or an appropriate adjustment) may continue to be used beyond August 14, 1990.

25. MONITORING REQUIREMENTS - Several monitoring activities, as prescribed by the EPA Monitoring Plan for the Deepwater Municipal Sludge Dump Site are required of the permittee. Monitoring activities will be conducted under Tier 1, Tier 2, and Tier 3 of the disposal site monitoring plan. Sewage sludge characterization data required under Tier 1 of the monitoring plan shall be submitted to EPA on a regular basis by each permittee. Monitoring activities required under Tier 2 and Tier 3 shall be implemented by the permittee. Monitoring activities are described in the EPA document "Permittee Monitoring Requirements: 106-Mile Deepwater Municipal Sludge Disposal Monitoring Program".

Under Tier 1 of the monitoring plan, the permittee is required to submit sewage sludge characterization data. Tier 2 monitoring plan activities will include measurement of upper ocean currents and water column structure to characterize sludge dispersion at and near the disposal site. Activities under Tier 3 will include monitoring of water mass movement from the disposal site for evaluation of large scale water movement.

Within 45 days of permit issuance, the permittee shall submit to

EPA a written quality assurance plan for implementation of Tier 2 and 3 activities. The permittee shall initiate Tier 2 and 3 activities within two and three months respectively of EPA approval of said quality assurance plan.

#### TIER 1 MONITORING REQUIREMENTS

Sludge characterization

Sample collection: For all characterization studies, representative sludge samples will be collected during vessel loading. Samples will be collected from a point on the discharge side of the pump delivering sludge from a digester or holding tank to a vessel being loaded for disposal at the disposal site. A flow-weighted composite sample, collected during the entire loading procedure, is required.

Permittees using an individual vessel to dispose of sludge from more than one treatment plant are required to characterize a sample composited from samples drawn from each compartment of the barge. Analysis of individual compartments shall be required to demonstrate the homogeneity of the sludge in the vessel, if the permittee chooses to request EPA approval to calculate disposal rates on the weighted-average required dilution of sludge entering the vessel.

Sample collection frequency: Samples shall be collected and analyzed at the following frequency:

- Monthly Parameters required to evaluate and set discharge rates.
  - 1. 96-hour acute bioassay tests. The permittee may conduct quarterly bioassay tests at its option. Discharge rates shall be reduced based upon one quarterly sample, however test results from two consecutive quarters shall be required in order for discharge rates to become less restrictive.
  - Conventional parameters.
  - 3. The following conventional pollutants: copper, lead, cadmium, and mercury in both the suspended particulate phase and the liquid phase of the sludge.
  - 4. Chemical analysis and solid phase toxicity tests may be required on settleable solids, if settleable solids are found in the sludge.

Quarterly - Parameters required for evaluating loadings at the

#### disposal site.

- 1. Organic Priority pollutant compounds for which marine water quality criteria exist.
- 2. Conventional and nonconventional pollutants.
- 3. Both the suspended particulate and liquid phase shall be analyzed.
- 4. Floatable materials.
- Volume of sludge generated and transported to the designated disposal site.

Semi-annually - Compounds excluded by the London Dumping Convention and organic priority pollutants.

- 1. Radioactivity.
- 2. Full organic priority pollutant scan.
- 3. These tests shall be conducted only on the suspended particulate phase unless settleable solids are found in the sludge. Chemical analysis on settleable solids may be required, if settleable solids are found in the sludge.

Analytical requirements: The chemical, physical, and microbiological parameters that shall be reported by the permittee for samples collected shall include the following:

#### Parameters:

#### O <u>Conventional Parameters</u>

Biological Oxygen Demand Total Residue Total Filterable Residue Total Nonfilterable Residue Settleable Solids Chemical Oxygen Demand Total Organic Carbon Specific Gravity pH

### o <u>Conventional and Nonconventional Pollutants</u>

Total Coliform Bacteria
Fecal Coliform Bacteria
Clostridium perfringens
Fecal streptococcal
Total Phosphate-Phosphorus
Total Kjeldahl-Nitrogen
Ammonia-Nitrogen
Nitrate-Nitrogen

Arsenic
Cadmium
Chromium, hexavalent
Chromium, total
Copper
Lead
Mercury
Nickle

Oil and Grease Selenium
Total Petroleum Hydrocarbons Vanadium
Cyanide Phenols Zinc

#### o <u>Radioactivity</u>

Gross Alpha Gross Beta Radium-226 Radium-228

#### o <u>Priority Pollutants</u>

<u>Sample analysis</u>: All toxicity testing, physical characterization, and chemical characterization will be performed on the same sample.

All tests shall be completed within EPA approved holding times.

Tests of the suspended particulate phase and liquid phase of the sludge are required as defined in the Sample Collection Frequency section above.

Toxicity tests: 96-hour bioassay tests shall be conducted on the suspended particulate phase of the sludge using the test organisms Menidia menidia and Mysidopsis bahia and/or any substitute organism designated by EPA to be more appropriate. LC50 and 95 percent confidence interval shall be calculated by one of the following methods: binomial method, trimmed Spearman-Karber method, moving average method, or probit method. Justification for method selection must be included with each data package submitted to EPA. The LC50 shall be reported in mg/L of sludge and as the percentage of the whole sludge. Toxicity test shall be conducted under the guidance and procedures established by:

APHA, 1985, Standard Methods for the Examination of Water and Wastewater, 16th Edition. American Public Health Association, Washington, D.C.,

EPA, 1985. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, 3rd Edition, (EPA/600/4-85-013),

EPA. 1987. Bioassay Procedures for the Ocean Disposal Permit Program. EPA 600/9-78-010. U.S. Environmental Protection Agency, Washington, D.C., or

in documents otherwise specified by EPA.

Physical and chemical characterizations: Analysis of conventional parameters and conventional pollutants shall be

#### conducted by;

- 1) Analytical procedures specified in EPA's Permittee Monitoring Requirements document or,
- 2) Test procedures selected by the permittee and approved by EPA.

Method detection limits and reporting units: Method detection limits required for the physical and chemical characterization listed in the following publications shall be required:

ASTM. 1985. Standard Methods for the Examination of Wastewater. American Public Health Association. 16th edition, Washington DC.

Test Methods for Evaluating Solid Waste. 1986. United States Environmental Protection Agency Office of Solid Waste and Emergency Responses, SW 846, 3rd Edition, Washington, DC.

Methods for chemical Analysis of Water and wastes. 1979. United States Environmental Protection Agency. Environmental Monitoring and Support Laboratory. EPA-600/4-79-020.

Specific detection limits are summarized in EPA's Permittee Monitoring Requirements document.

Reporting units for all physical and chemical characteristics shall be in mg/L of sludge or as appropriate to the specific test. Conversion factors for calculating results on dry weight basis shall be included with all data.

Methods for floatable material will be specified by EPA.

<u>Sample replication</u>: Replicate analysis of the quarterly chemical monitoring data is required. Replication of the monthly data is required on at least two of the twelve samples analyzed each year.

Reporting requirements: All data shall be submitted to EPA no later than 45 days following sample collection. Laboratory quality control data shall be submitted with all analytical and toxicity data. A statement verifying that the data has been audited and found to be accurate shall be included with each data package.

Quality assurance plan: The permittee shall file with EPA a written quality assurance plan covering all sampling and testing procedures. The quality assurance plan shall follow the format described in EPA 556/2-88-001, "Guide for Preparation of Quality Assurance Project Plans for the National Estuarine Program". The

quality assurance plan must be filed with EPA within 45 days of permit issuance. Monitoring may not begin before the quality assurance plan is submitted and approved by EPA.

Any change requested from the testing or analytical procedures listed in the approved quality assurance plan shall be submitted to EPA. Changes in approved testing procedures must be approved by EPA in writing prior to implementing the changes.

Testing laboratories: Within 45 days of permit issuance the permittee shall file, for approval by EPA, the name and address of the laboratory(s) designated to conduct testing.

Any change in the approved testing laboratory shall be immediately reported to EPA in writing.

Any laboratory employed for the purpose of performing the analyses and testing shall maintain a viable analytical quality control program. This program shall include:

- 1) Use of EPA Approved Methodologies as described in the Permittee Monitoring Requirements Document.
- 2) Use of EPA approved sample preservation techniques and holding times specified in the analytical and testing methods as prescribed in the EPA manual <u>Test Methods for Evaluating Solid Waste</u>. 1965 (SW-846).
- 3) Routine use and documentation of intra-laboratory quality control practices as recommended by the EPA manual <u>Handbook for Analytical Quality Control in Water and Wastewater Laboratories</u>. These practices shall include use and documentation of internal quality control samples, conduct audits, and data/report audits.
- 4) The laboratory facilities, data, records, and quality control records are subject to periodic inspection by EPA personnel.
- 5) EPA may require analysis of quality control samples by any laboratory employed for the purpose of compliance with this condition. Upon request, the permittee generator shall provide EPA with the analytical results from such samples.

#### TIER 2 MONITORING REQUIREMENTS

Permittee(s) shall be responsible for collecting information on water column structure and currents. Specifications for the deployment positions and navigational requirements for these measurements are included in EPA's Permittee Monitoring Requirements document.

Surface current shear in the ocean at the disposal site shall be obtained from expendable current meter (XCP) profiles.

XCP equipment shall be provided to one transport company. Acquisition of data from this probe need not be performed off the same barge.

XCP deployments shall be from a manned barge on a weekly basis.

Data acquired by this measurement shall be sent to EPA within 7 working days from collection.

Meteorological observations shall be required for each deployment of the XCP.

Permittees shall be required to perform additional Tier 2 monitoring to determine the nearfield fate and short-term effects of sludge dumping at the Deepwater Municipal Sludge Dump Site at the direction of EPA.

#### TIER 3 MONITORING REQUIREMENTS

Permittees shall be responsible for acquisition of data required to determine:

Water mass movement from the Deepwater Municipal Sludge Dump Site.

Evaluation of large-scale water movements.

Determine settling of sludge particles in the field.

#### Surface drifters:

Permittees shall launch one surface drifter per week from a manned vessel dumping sludge within the designated disposal site for tracking by ARGOS satellite.

Data shall be submitted to EPA for analysis.

The technical activity involved in deploying drifters shall be conducted by vessel crews upon training by EPA.

EPA may modify the drifter program based upon the data received.

26. In the event that any dump site monitoring, or plant inspection, or any surveillance activities reveal that floatables

are being ocean dumped, or that a likely probability exists that floatables are being ocean dumped, the Regional Administrator or his delegate may require the permittee to screen each vessel load of waste for floatables before any dumping of said waste shall be allowed.

27. Waste Manifest System a. Inspection - The permittee is required to maintain inspectors and is required to have one or more inspectors present before any of the permittee's waste is loaded onto a vessel. If a transfer of the permittee's waste occurs at a point other than at dock side of a permittee, the waste transporter shall provide an independent inspector, approved by EPA, to observe and record the transfer operation. Responsibilities and duties of the inspectors, for the purposes and terms of this permit condition, are described in Attachment No. 2.

All vessels shall be maintained with a system of sequentially numbered EPA seals which will be provided to the permittee by EPA. This system shall require that all discharge valves on all feeder vessels, with the following exception, be permanently sealed with approved EPA seals. Those valves that cannot be permanently sealed, due to their use for loading and unloading operations, shall be re-sealed by the inspector immediately upon completion of each transfer (loading or unloading). When ocean going vessels receive waste, all discharge valves shall be sealed prior to loading and all other valves shall be sealed immediately upon completion of each loading operation.

For the purposes and terms of this permit condition a feeder vessel is defined as any vessel that is used to transfer waste from one location to another. An ocean going vessel is defined as any vessel that is authorized to dispose of waste at the DMSDS. Any vessel that can be used as both a feeder vessel and an ocean going vessel shall at all times be considered an ocean going vessel.

No transfer of waste shall occur between a permittee and feeder vessel or ocean going vessel, or feeder vessel and ocean going vessel, if any seal is broken or missing, unless broken by the inspector to allow for such transfer or unless broken by the waste transporter on an ocean going vessel as described in the following paragraph. If any seal(s) is broken or missing, the vessel shall remain at dock side or transfer point and the inspector shall immediately notify EPA and/or the Coast Guard, and the permittee.

Prior to leaving for the DMSDS, all ocean going vessels shall have all of their valves sealed. Thereafter, no seal on the ocean going vessel shall be broken until said vessel enters the DMSDS, at which time the waste transporter shall break only those seal(s) necessary for the discharge operation. If it is

determined that any seal(s) has been broken prior to such time, the vessel shall not be permitted to discharge any waste and shall immediately return to port unless permitted by the Coast Guard or EPA to proceed.

The waste transporter shall provide for safe access [i.e., gangplank with safety rails, mechanically secured to either the dock or barge] to the barge from dock side. When two or more barges are moored side-by-side at dock side the waste transporter shall provide for safe access[i.e., gangway with safety rails, mechanically secured to either of the barges] from barge to barge.

b. Waste Manifest Forms - Each time a waste transfer occurs a record of the transfer must be maintained by the permittee's inspector (when transfer occurs at dock side) and as applicable the independent waste transporter's inspector. The time of loading/unloading, location, arrival and departure time, and quantity of waste transferred as well as other required information shall be clearly indicated on the Inspector form (see Attachment No. 3). Such forms shall be submitted to EPA (original form) and the Coast Guard within 3 business days after completion of each loading or transfer operation.

In addition, the inspector shall record information on the transfer operation on the Manifest Form Attachment No. 4, retain a copy for his records and pass on such form to the vessel operator. The vessel operator shall surrender such form to the inspector at the next transfer point for the inspector's use. This procedure shall be repeated until the last transfer point, at which time the inspector recording the last transfer shall return the form to the vessel operator, who shall surrender the form to the master of the vessel on the ocean going vessel. form(s) (i.e., Attachment No. 4) shall then be attached to the ODNF and submitted to the EPA at the same time as the ODNF. Additionally, the waste transporter (vessel operator) shall also maintain a monthly log of the seal numbers and other information on the attached EPA form. This form (see Attachment No. 5) shall be maintained on each vessel and submitted to EPA (original form) and the Coast Guard within 10 calendar days of the end of each month.

c. Accountability - Each permittee and each waste transporter shall maintain a record that shows the date upon which each of the required forms, under this condition, was mailed by said permittee and said waste transporter to the EPA and the Coast Guard. Said record will be maintained on a monthly basis and shall be submitted to the EPA and the Coast Guard within 15 calendar days of the end of each month. All broken seals shall be returned to the EPA at the same time as the above mentioned record along with a listing of the seal identification numbers for the returned seals.

28. Notice to Regulatory Agencies - The waste transporter shall provide telephone notification of sailing to the Captain of the Port (COTP) at 212-668-7936 not later than two (2) hours prior to the estimated time of departure for the dump site designated in Condition No. 20. The waste transporter shall confirm the exact time of departure within thirty (30) minutes of the actual departure time, and shall immediately notify the COTP upon any changes in the estimated time of departure greater than one (1) hour.

The following information shall be provided in the notification of sailing.

(1) Permit number.

(2) Name of the towed vessel and tugboat, or self-propelled vessel.

(3) Name of the transporter.

(4) Type and quantity of waste being transported.

(5) Place of departure.

(6) Location of dump site.

(7) Time of departure.

- (8) Estimated time of arrival at the dump site.
- (9) Estimated time of departure from the dump site.
- (10) Estimated time of return to port.
- 29. a. No vessel shall transport waste to the DMSDS for the purpose of dumping said waste unless a shiprider is on board, unless waived by the EPA Regional Administrator or his delegate. Said shipriders shall be approved by EPA and shall be supplied by the permittee.
- b. The shiprider shall be provided with quarters including, at least, a bunk solely for his use plus access to sanitary toilet facilities. These quarters, as well as the shiprider's subsistence while on board, shall be provided by and shall be at the expense of the waste transporter. Further, should the return port be different from that of the port of departure, the shiprider shall be provided transportation to the port of departure at the expense of the waste transporter. The shiprider shall be treated courteously and afforded free and immediate access to all navigational capabilities on the vessel which can provide information on position, course speed, depth of water, bearing, etc., and to communications equipment.
- c. The attached shiprider form (see Attachment No. 6) shall be completely filled out, signed and dated by the shiprider and shall be mailed to EPA within 72 hours after the completion of the voyage.
- 30. a. The waste transporter shall maintain and submit to EPA, the Captain of the Port (COTP) and the permittee(s) on a

monthly basis Attachment No. 8 which identifies the following information:

(1) Name of each vessel that departed port during the month and dumped waste at the designated dump site. Any vessel that commenced discharge operations at anytime during the month shall be reported in that month, regardless of when said discharge operation was completed.

(2) Date and time of departure of each vessel.

(3) COTP reference number for each vessel mission.

(4) Quantity of waste (gallons, wet tons) from each permittee (s) dumped by each vessel during each vessel mission.

> (5) Date and time upon which each vessel commenced discharge operations.

(6) Date upon which each ODNF was mailed to EPA.

- b. The permittee shall submit to EPA, on a monthly basis Attachment No. 9 which identifies the following information:
  - (1) Name of each vessel upon which any waste generated from permittee's facility was transferred to, at anytime during the month.
  - (2) Date and time that permittee commenced transferring waste to each vessel. Any waste transfer that commenced at anytime during the month, shall be reported in that month, regardless of when said waste transfer was completed.
  - (3) Date and time that permittee completed transfer of waste to each vessel.
  - (4) Quantity of waste (gallons, wet tons, dry tons) loaded onto each vessel.
- c. Each report required by this condition shall be received by EPA and all other named parties, within 10 days of the end of the reporting period. First reporting period begins August 15, 1989, and ends on August 31, 1989. The first report shall be received by EPA on or before September 10, 1989. The second reporting period begins September 1, 1989, and ends on September 30, 1989. The second report shall be received by EPA on or before October 10, 1989 and such reporting shall continue monthly thereafter.
- 31. Reports and Correspondence All reports and related correspondence required by the permit to be submitted to EPA shall be addressed as follows:

All reports and related correspondence required by the permit to be submitted to the U.S. Coast Guard shall be addressed as follows:

U.S. Coast Guard Captain of the Port Governors Island New York, New York 10004

- 32. <u>Liability</u> The permittee is liable for compliance with all Conditions, including Attachments, contained in this permit.
- a. The permittee and waste transporter shall be jointly and severally liable for compliance with all Conditions, including Attachments of this permit with the exception of the following: Condition Nos. 25 and 30 (b).
- b. Any person owning or operating a towing vessel employed for the purposes of the activities authorized by this permit, shall be jointly and severally liable together with the permittee and waste transporter for compliance with all Conditions including Attachments of this permit with the exception of the following: Condition Nos. 23, 25, 26, 29 (c), and 30.

By authority of Administrator United States Environmental Protection Agency:

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| Signed | this _ | leason r              | day of         | 100200 | 1989: |

Page 2 of 9 ...

## OCEAN DUMPING NOTIFICATION FORM (PLEASE PRINT OR TYPE)

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| Environmental Protection Agency Permit   |  |
| Number The overlay   |  |
| represents an accurate description of  |  |
| the time and position at critical points 32'55'N   |  |
| of the dumping operation, including  |  |
| entry and exit from the dump site;   |  |
| beginning and end of dump; and points 38'53'N  |  |
| every two (2) hours along the discharge  |  |
| trackline. As master of the  |  |
| vessel, I further certify that the 38'51'N   |  |
| dumping conditions of the applicable   |  |
| permit were met.   |  |
| 38'49'N  |  |
| Date:  |  |
| Signed:  |  |
| COTP No 38°47'N  |  |
| Barge Name: 38°46'N  |  |
|  |  |
| Deepwater Municipal 38°45'N Sludge Dump Site   |  |
| 38'44'N  |  |
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| THIS COLLECTION OF INFORMATION HAS BEEN SUBMITTED TO NINE OR FEWER PERSONS (PERMITTEES) AND THEREFORE IS NOT SUBJECT TO THE PAPERWORK REDUCTION ACT. |  |
| 38'42'N  |  |
| MAIL WITHIN 72 HOURS AFTER RETURN TO PORT TO THE FOLLOWING: 38*41*N  |  |
| U.S. ENVIRONMENTAL PROTECTION AGENCY U.S. COAST GUARD WATER MANAGEMENT DIVISION CAPTAIN OF THE PORT  |  |
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# RESPONSIBILITIES AND DUTIES OF INSPECTION PERSONNEL

- 1) All inspection personnel or their supervisor(s) shall be instructed in their duties and responsibilities by the EPA.
- 2) All inspection personnel must be approved by EPA.
- 3) An inspector may be an employee of a permittee.
- 4) The number of inspectors shall be limited to a reasonable number for each permittee.
- 5) During transfer operations the inspector <u>shall not</u> have any other responsibilities or duties other than those that are involved in the transfer operation with the exception of the following:

If there is a discontinuation in the transfer operation the inspector(s) may leave after sealing all un-sealed valves. Thereafter, the transfer operation shall not resume until an inspector(s) is present to break the seal(s).

- 6) An inspector shall be required to physically inspect each seal and record or verify the seal identification number.
- 7) An inspector is responsible for immediately notifying EPA and the Coast Guard of any permit violation.

AT LEAST ONE OF THE PHONE NUMBERS SHOWN BELOW CAN BE REACHED 24 HOURS A DAY 7 DAYS A WEEK.

U.S. ENVIRONMENTAL PROTECTION AGENCY

U.S. COAST GUARD

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|  |       |   |                                      |                  |
| Full Name of Earge Oper  | ators |   |                                      | 0 107 geo ye     |
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| Pull Name of Barge Oper<br>Name of Towing Vessel   | tor   |   |                                      | 107 gar          |
| Full Name of Barge Oper Name of Towing Vessel Full Name of Vessel Mass   | tor   |   |                                      | 107 gar          |
| Full Name of Earge Oper<br>Name of Towing Vessel   | tor   |   |                                      |                  |
| Full Name of Barge Oper Name of Towing Vessel Full Name of Vessel Has  | ter   |   | Dr                                   | Lft:             |
| Full Name of Barge Oper Name of Towing Vessel Full Name of Vessel Mass Sestination Frive Dock/Barge              | ter   |   | Dr                                   | Lft:             |
| Full Name of Barge Oper Name of Towing Vessel Full Name of Vessel Mass Destination Frive Dock/Barge tart Loading | ter   |   | Dr                                   | Lft:             |
| Full Name of Barge Oper Name of Towing Vessel  | ter   |   | Dr                                   | Lft:             |

|   | .nom |     |      |   |   |  | arge | Name_ | <br> |  | De ta_ |                     |
|---|------|-----|------|---|---|--|------|-------|------|--|--------|---------------------|
| Volum lamedictoly  <br>  Prior to Esperture               |      | 81  |      | EE<br>GOAL  |   |  |      |       | Ж    |  |        |                     |
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| Volume After  |      |     |      |   |   |  |      |       |      |  |        | 14 mm               |
| Lovel After<br>  Loading                                  |      |     |      |   |   |  |      |       |      |  |        |                     |
| Volume Prior  |      |     |      |   |   |  |      |       |      |  |        |                     |
| Level Prior   |      | -   |      |   | - |  |      |       | <br> |  |        | <b>-</b>            |
| Volume<br>At Arrival                                      | 3    |     |      |   |   |  |      |       |      |  |        |                     |
| Lovel of  |      |     | <br> |   |   |  |      |       | -    |  |        |                     |
| Studge Tank   Lovel at<br>  Compart. No.(1)   Jerival (2) |      |     |      |   |   |  |      |       |      |  | IUAS   | (fals and Met Tors) |

- 24

Seals Broken

Page A of A ...

| Sarge | Name |  | Cate |  |
|-------|------|--|------|--|

Replacement Seals

IV.

|      | ******   | ********                                     | ******   | ••••••   |
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| v. : | 1. Were any of the se  | sals broken or missin                        | 18?  | na ban ƙasa la   |
|      | List valve number  | (s) under "Comments"                         |  |  |
|      |  |  |  |  |
|      | If yes, was EPA or   | COTF and Parmittee                           | notified by the Inspe  | ector?   |
|      | att in   |  | Mathematics L  |  |
|      | <ol> <li>Do all seal number<br/>maintained on the</li> </ol>                 | ers prior to transfer<br>barge's log of seal | match the seal numbers?  |  |
|      | If no, explain un  | nder "Comments"                              | on all made to govern  |  |

3. Were there any disruptions in the loading/litering operation?

Specify under "Comments"

|      |   | Strge Hame   | De ta  |
|------|---|--|--|
|      | 4. Were there any spills during the   | loading/litering oper  | ation?   |
|      | If yes, explain under "Comments" and describe actions taken to mis environment.   | tigate harm to the   | 9  |
|      |   |  | rrieV .  |
| Com  | penta:  |  | 7 - 2 - 4 - 9  |
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| VI.  | I certify under penalty of law that I have personal am familiar with the information submitted in the submitted information is true, accurate, and aware that there are significant penalties for information; including the possibility of fine see 18 USC @1001. (Penalties under this statute fines up to \$10,000 and maximum imprisonment of and 5 years.) | nerein. I certify i complete. I am submitting false and imprisonment e may include   |  |
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| U.S  | ENVIRONMENTAL PROTECTION AGENCY   | U.S. COAST GUARD   | •  |
|      | (212) 264-5692  | (212) 668-7936   | lera IKA 69. 10.<br>Siniara,   |
| Sub  | mit to the following within 72 hours o  | f completion of trans  | fer.   |
|      | T & Proframental Protection   | U.S. Coast Guard   | end are if   |

ATTN: Ocean Dumping Program

Water Management Division

New York, New York 10278

Agency

26 Federal Plaza

Room 805

Governors Island New York, New York 10004

ATTN: Captain of the Port

| ATTAC     | HMENT No. 4              | MANIFEST                  |                           | ntrel Ze.                                   |                   |
|-----------|--------------------------|---------------------------|---------------------------|---|-------------------|
|           | Barge                    | Name                      | <b>di</b>                 | Broken seals<br>scovered prior<br>transfer? |                   |
| Permittee | / 877                    | Volume (ga                | 20                        | Loss/discharge<br>sludge during<br>maier?   |                   |
| Permittee | / 877                    |                           | 3.                        | Any inconsister                             | LEY               |
|           |                          |                           |                           | ween seal #'s<br>barge log?                 |                   |
|           | / 577                    | TAIL                      |                           |   | Check if applicab |
| Valve     | Losding                  | 1/1                       |                           |   |                   |
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| ••••••    |                          |                           |                           |   |                   |

| Valve<br>I.D. | -            | ooding            |          | 1/   | _           | 1         | 2/            | -             | 1 2         | 12          |
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|               | Seal<br>Ints | l New<br>ct Seal# | Sa<br>In |      | New<br>Seal |           | eal<br>ntact  | New<br>Seal d | Seal        | Few<br>Seal |
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certify under penalty of law that I have personally examined nd am familiar with the information submitted herein. I certify he submitted information is true, accurate, and complete. I am an information; including the possibility of fine and imprisonment in SUSC \$1001. (Penalties under this statute may include lines up to \$10,000 and maximum imprisonment of between the statute may include and include the statute may include the statut

THIS COLLECTION OF INFORMATION HAS BEEN SUBMITTED TO NINE OR FEWER PERSONS (PERMITTEES) AND THEREFORE IS NOT SUBJECT TO THE PAPERWORK REDUCTION ACT.

BIRCH WILL.

I certify under penalty of law that I have personally examined ind am familiar with the information submitted herein. I certify the submitted information is true, accurate, and complete. I am ware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment see 18 USC \$1001. (Penalties under this statute may include fines up to \$10,000 and maximum imprisonment of between 6 months and 5 years.)

THIS COLLECTION OF INFORMATION HAS BEEN SUBMITTED TO NIME OR FEMER PERSONS (PERMITTEES) AND THEREFORE IS NOT SUBJECT TO THE PAPERMORK REDUCTION ACT.

MONTHLY BARGE LOG

| DAKUE | MANL: |  |  |
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|       |       |  |  |

SLUDGE VOLUMES (GALLONS)

|                 |                      |                          |                        |                         | (6                                    | ALLONS)           |                     |
|-----------------|----------------------|--------------------------|------------------------|-------------------------|---------------------------------------|-------------------|---------------------|
| ontrol<br>umber | Transfer<br>Location | Transfer Begin Date/Time | Transfer End Date/Time | Prior<br>To<br>Transfer | Total<br>Transfarred                  | After<br>Transfer | Next<br>Destination |
|                 |                      |                          |                        |                         |                                       |                   |                     |
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All times to be expressed in military time.

Signature:

## SHIPRIDER FORM

## (PLEASE PRINT OR TYPE)

| To: | Environmental Protection Agency Water Management Division COTP Reference No Room 805 Date of Departure New York, New York 10278 MPRSA Permit No  |
|-----|--|
|     | Name of Employer Name of Vessel Master Name of Tugboat Name of Barge Departure Location Time & Date of Departure Quantity of Sludge Loaded onto Barge (Gallons and Wet Tons) Return Location Time & Date of Return |
|     | Date Time Latitude Longitude  :At Point of Departure :2 Hours after Leaving Port :10 Hours after Leaving Port :Arrival at Dump Site :Start of Discharge :End of Discharge :Exit Dump Site :Return to Port          |
| All | times to be expressed in military time   |
|     | Were there any disruptions (i.e., start/stop/start discharge) in the discharge operation?  Yes No  If yes explain  |
| 2)  | What was the minimum vessel speed that you observed during the dumping operation? Nautical Miles Per Hour.   |
| 3)  | What was the maximum vessel speed that you observed during the dumping operation? Nautical Miles Per Hour.   |
| 4)  | Were you able to observe a sludge plume? Yes No  |
|     | If no explain  |
|     |  |

| complete  | the fo  | llowing:   |   |  |
|---|---|--|---|--|
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| HILL BUTTON BANGER  |   |  | ng the dischar  | ro eneration   |
| weather   | Condit  | ions duri  | ng the dischar  | ge operation.  |
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|   | weather  Force 5  Wind Speed (knots)  ee any or                                 | weather condit  Force 5 (or gr  Wind Wind Dir. (knots)  ee any other ba  | weather conditions duri  Force 5 (or greater) Wi  Wind Wind Sea State (knots)  ee any other barge(s) in  give date(s) and time(s) | weather conditions during the discharge force 5 (or greater) Wind Conditions:  Wind Wind Sea Speed (knots)  ee any other barge(s) inside the dump give date(s) and time(s) of sighting(s   |

New York, New York 10278 Att: Ocean Dumping Program

## Beaufort Wind Scale

| Beaufort           |                | Vind Spe       | <b>d</b> :      | World<br>Meteorological     |   | Estimating Wind Speed  |  |
|--------------------|----------------|----------------|-----------------|-----------------------------|---|--|--|
| Number<br>or Force | Knots          | mph            | lone/hr         | Organization<br>Description | Effects Observed at San   | Effects Observed Near Land   | Effects Observed on Land   |
| 0                  | under 1        | under 1        | under 1         | Calm                        | Sea like a mirror   | Calm   | Calm; smoke rises<br>vertically  |
| 1                  | 1-3            | 1-3            | 1-5             | Light Air                   | Ripples with appearance of scales; no foam crests   | Small sailboat just has steerage way                                     | Smoke drift indicates wind direction; vanes do not move  |
| . 2                | 4-6            | 4-7            | <i>6</i> –11    | Light Breeze                | Small wavelets; crests of glassy appearance, not breaking   | Wind fills the sails of small boats which then travel at about 1-2 knots | Wind felt on face; leaves<br>rustle; vanes begin to mon  |
| 3                  | 7-10           | <b>\$-12</b>   | 12-19           | Gentle Breeze               | Large wavelets; crests<br>begin to break, scattered<br>whitecaps  | Sailboats begin to heel and travel at about 3—4 knots                    | Leaves, small twigs in constant motion; light flat extended  |
| 4 .                | 11-16          | 13-18          | 20-28           | Moderate<br>Breeze          | Small waves 0.5—1.25<br>meters high, becoming<br>longer; numerous<br>whitecaps  | Good working breeze, sailboats carry all sail with good heel             | Dust, leaves, and loose<br>paper raised up; small<br>branches move                                   |
| 5                  | 17-21          | 19-24          | 29-38           | Fresh Breeze                | Moderate waves of 1.25—2.5<br>meters taking longer form;<br>many whitecaps; some<br>spray   | Satiboats shorten sail   | Small trees in leaf begin to<br>sway   |
| 6                  | 22-27          | 25-31          | 39-49           | Strong Breeze               | Larger waves 2.3—4 meters forming: whitecaps everywhere; more spray   | Sailboats have double recred mainsalls                                   | Larger branches of trees in<br>motion; whistling heard in<br>wires                                   |
| 7                  | 23-33          | 32-38          | 50-61           | Near Gale                   | Sea heaps up, waves 4—6<br>meters; white foam from<br>breaking waves begins to be<br>blown in streaks   | Boats remain in harbor;<br>those at sea heave-to                         | Whole trees in motion;<br>resistance felt in walking<br>against wind                                 |
| 8                  | 34-40          | 39-46          | 62-74           | Gale                        | Moderately high (4-6 meter) waves of greater length; edges of crests begin to break into spindrift; foam is blown in wellmarked streaks                               | All boats make for harbor, if near                                       | Twigs and small branches<br>broken off trees; progress<br>generally impaired                         |
| 9                  | 41-47          | 47-54          | 75-88           | Strong Gale                 | High waves (6 meters); sea<br>begins to roll, dense streaks<br>of foam; spray may reduce<br>visibility  |  | Slight structural damage occurs; slate blown from roofs  |
| 10                 | 48-55          | 55-63          | 89-102          | Storm                       | Very high waves (6—9 meters) with overhanging crests; sea takes a white appearance as foam is blown in very dense streaks; rolling is heavy and visibility is reduced |  | Seldom experienced on<br>land; trees broken or<br>uprooted; considerable<br>structural damage occurs |
| 11                 | 56-63          | 64-72          | 103-117         | Violent Storm               | Exceptionally high (9—14 meters) waves; sea covered with white foam patches; visibility still more reduced  |  | Very rarely experienced or<br>land; usually accompanied<br>by widespread damage                      |
| 12                 | 64 and<br>over | 73 and<br>over | 118 and<br>over | Hurricane                   | Air filled with foam; waves<br>over 14 meters; sea<br>completely white with<br>driving spray; visibility<br>greatly reduced   |  |  |

## Beauton Wind Scale

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MONTHLY TRANSPORTATION AND DUMPING LOG

| s. Date ODNF<br>Mailed to EPA             |  |  |  |  |  |  |  |  |  |  |                   |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--|-------------------|--|--|--|--|--|
| Start of Dis.<br>Date/Time                |  |  |  |  |  |  |  |  |  |  |                   |  |  |  |  |  |
| Volume (By Permittee)<br>Wet Tons Gallons |  |  |  |  |  |  |  |  |  |  |                   |  |  |  |  |  |
| Volume (By<br>Wet Tons                    |  |  |  |  |  |  |  |  |  |  | The second second |  |  |  |  |  |
| Volume<br>Gallons                         |  |  |  |  |  |  |  |  |  |  |                   |  |  |  |  |  |
| COTP Reference<br>Name                    |  |  |  |  |  |  |  |  |  |  |                   |  |  |  |  |  |
| Barge<br>Name                             |  |  |  |  |  |  |  |  |  |  |                   |  |  |  |  |  |
| Departure<br>Date/Time                    |  |  |  |  |  |  |  |  |  |  |                   |  |  |  |  |  |

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MONTHLY SLUDGE VOLUME LOG

Permittee: Month/Year:

Dry Tons Quantity Wet Tons Gallons Loading Completed Date/Time Barge Name Loading Started Date/Time Monthly Totals

|  |  |  |  |  |  |  |  |  |  |   |  |  |  | 1 |  |  |  |
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